

## Memorandum

**To:** Terry Schum, City of College Park

**From:** Michael Connor

**Date:** February 28, 2007

**Re:** Special Lot Structured Parking Preliminary Feasibility Study & Operational Recommendations

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### Introduction

DESMAN, Inc. was retained by the City of College Park to perform a preliminary financial feasibility study for a potential 300 (+/-) space parking structure on the Special Lot site, currently configured and operated as a 40 space metered surface parking lot adjacent to City Hall. This study is termed preliminary as more detailed information related to utilization, future development potential, market conditions and the public parking system is required. However, this analysis is sufficiently detailed so that the City can assess the relative feasibility of the project. The intent is simply to determine what level of financial subsidy would be required to support both the development of the parking structure and the current fiscal contribution that the public parking system makes to the City's General Fund.

All parking demand and financial assumptions as well as all tables and calculations are presented for review and comment. This summation includes the cumulative support and input from various City departments, including but not limited to the Planning Department, Finance Department, the Parking Supervisor, the City's legal council, and a representative from the business community. The methodology involved and the tables and exhibits associated with each step are referenced below.

### Methodology

- Step 1: Determine current parking inventory/occupancy conditions (see Exhibit A and Table 1)
- Step 2: Illustrate and quantify assumptions regarding potential capture of existing utilization into the Special Lot garage (Tables 2, 3, and 4)
- Step 3: Estimate potential annual parking revenue and expenses by a new garage (Table 5)
- Step 4: Prepare a preliminary proforma statement for the garage under a stand-alone (no outside financial support) condition (Table 6)
- Step 5: Examine current/historic public parking system revenues and expenses (Table 7)
- Step 6: Alternative parking rates are justified through a survey of similar/nearby parking systems (Table 8)

Step 7: System-wide parking revenues and expenses are projected over a 10-year period (Table 9a and 9b)

Step 8: Future system-wide operating revenues over expenses are compared to the current operating revenues over expenses figure (Table 10a and 10b).

### **Assumptions**

As this is a preliminary financial feasibility study there are a considerable number of assumptions that are quantitative and qualitative in nature, including current parking demand capture, absorption of existing spaces that might be vacated by parkers relocating to the Special Lot garage, development/financing costs and potential impacts on current parking meter and parking fines/violations revenue.

The following summarizes these key assumptions:

1. *Current metered rates would increase from \$0.50 and \$0.55 per hour to \$0.75 per hour in FY2008.*
2. *With an increase in parking rates and meter revenue a "Parking Fund" would be created in FY2008 to accumulate surplus revenue for the purpose of drawing down future parking system operating/general fund deficits.*
3. *The financial analysis assumes that an annual contribution to the General Fund in the amount of \$780,000 must be made. This figure was provided by the City.*
4. *The garage would be constructed and fully operational beginning in FY2010. At this time, metered rates would increase to \$1.00 per hour. Transient/metered rates within the Special Lot garage would initially be \$0.75 per hour.*
5. *The annual debt service payment on the garage would not include land acquisition costs. All debt service costs were provided by the City.*
6. *Permit parking rates system-wide would increase 10% every third year.*
7. *Approximately 20% of current transient parking activity within the study area could be captured (drawn to) a garage on the Special Lot, with the City Hall, Lot 1, and Lot 3 being key sources.*
8. *Of the 20% of current transient parking activity that will be captured by a new Special Lot garage (roughly 100 occupied spaces); only 50% of those vacated spaces would be immediately reoccupied by new parking demand.*
9. *There is a substantial number of employees and students who do not have parking permits and many (100% of employee requests and 50% to 80% of student requests) would choose to purchase permits in a Special Lot garage.*
10. *Special Lot garage access and revenue control system has not been determined.*
11. *Transient parking activity would remain consistent throughout a weekday and a Saturday; achieving a transient vehicle to space turnover rate of 2.5 vehicles per space per day. Parking would be free on Sundays*



12. *Regardless of any meter rate increase scenarios, meter and permit revenues generated by existing facilities would grow 5% per year reflecting a historic increase in parking utilization.*
13. *The analysis assumes that the current metered time limits will be enforced (no meter feeding).*
14. *With a 43% increase in public parking capacity (more choices and availability), and changes to parking enforcement procedures (see assumption 12), some loss of parking fine/violation revenue may occur. As such, two scenarios have been examined. Scenario 1 assumes there will be no decrease in fine/violation revenue while Scenario 2 assumes that there will be an immediate 20% decrease in fine/violation revenue.*
15. *Redevelopment of the City Hall City (a mixed use development with structured parking) is not included in this analysis.*

The most contentious assumption involved parking fine/violations revenue. There was a “school of thought” amongst some of the study contributors that parking fine/violation revenue would increase in proportion with the increase in parking supply. The consultant argued that the opposite could be true given an increase in the availability of spaces and choices, particularly if the new parking structure used a gated control system where parkers would pay-on-exit a fee equal to the length of their respective stay. An automated pay-on-foot/pay-on-exit system was/is recommended by this consultant. Under this scenario, no fine revenue would be generated nor would additional enforcement personnel be required. The alternative to this recommendation is the installation of single space or multi-space meters (no gates). Like the current meter program, this approach would continue to expose parkers to the potential of underestimating their duration of stay and potentially receiving a parking ticket.

A second operational issue that was discussed and is a key to making the Special Lot garage attractive to permit and hourly parkers is the enforcement of posted time limits. The parking system has a combination of 60 minute, 90 minute, 2-hour, and 3-hour metered spaces. However, the City does not enforce these posted time limits. Parkers are encouraged to “feed the meter”. This system permits long-term parkers, namely employees, to park for long periods of time in spaces that are closest to offices, shops, and restaurants where they work. This reduces the number of convenient spaces for the shoppers and visitors themselves. By enforcing the current time limits, longer termed parkers would be encouraged to relocate to more peripheral parking facilities where longer term parking is permitted, namely a Special Lot garage. Additionally, by instituting a tiered pricing strategy, where hourly parking in a Special Lot garage is always less expensive than parking in a surface lot or on-street, more price sensitive shoppers and visitors could choose to target the Special Lot garage as their parking destination.

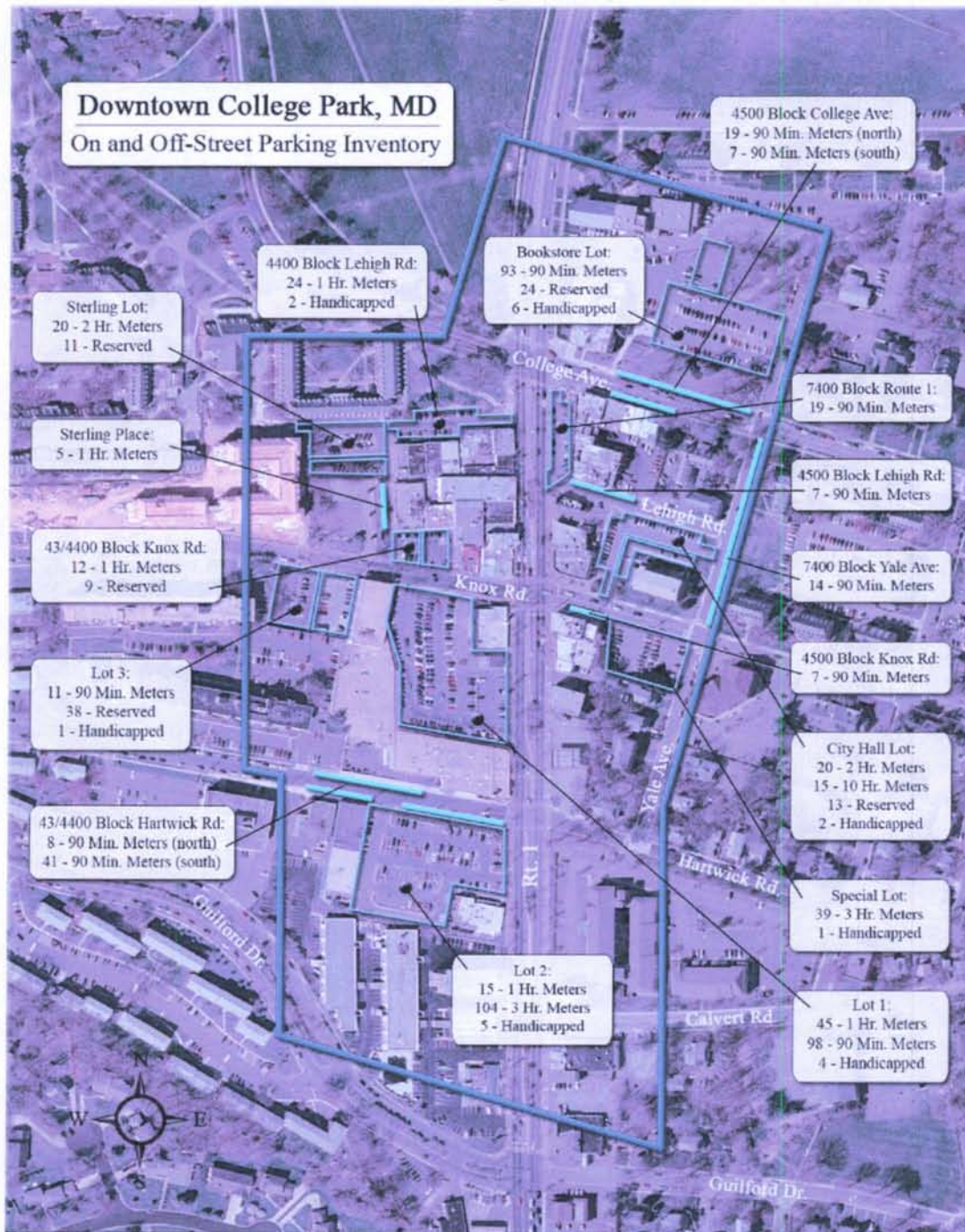
### **Assessment of Existing Conditions**

Exhibit A illustrates the boundary of the study area. This area was originally studied for the City by DESMAN Associates in 2003. Given the age of the original study data newer study data was required. Unfortunately, December or January field surveys of parking occupancy would not



prove valuable because of the time of the year and the University's schedule. As an alternative, seasonal perspective on peak daytime and evening parking utilization was gathered through discussions with the Parking Supervisor and the Director of Finance. Table 2 summarizes the current parking inventory and the peak weekday and weekday evening utilization.

*Exhibit A*  
**Current Parking Inventory**



**Table 2**  
**City of College Park - Special Lot Feasibility Study**  
**Updated Parking Inventory and Peak Parking Occupancy**  
*(based on discussion with City Parking Administrative)*

	Restrictions	Capacity	Weekday	Occupancy		
				%	Weekday Evening	%
Off-Street Parking						
Bookstore Lot	90 Minute Meters	93	19	20%	0	0%
	Handicapped	6	0	0%	0	0%
	Reserved	24	22	90%	4	15%
7400 Blk. Route 1	90 Minute Meters	19	17	90%	19	100%
City Hall Lot	2 Hour Meters	20	20	100%	20	100%
	10 Hour Meters	15	14	90%	15	100%
	Handicapped	2	1	50%	0	0%
	Reserved	13	13	100%	7	50%
	3 Hour Meters	39	39	100%	39	100%
	Handicapped	1	0	0%	0	0%
Lot 2	1 Hour Meters	15	14	90%	15	100%
	3 Hour Meters	104	62	60%	94	90%
	Handicapped	5	3	60%	3	60%
	1 Hour Meters	45	41	90%	45	100%
	90 Minute Meters	98	88	90%	98	100%
	Handicapped	4	0	0%	1	25%
	90 Minute Meters	11	11	100%	10	90%
	Handicapped	1	1	100%	0	0%
	Reserved (CP/SC Permit)	38	34	90%	34	90%
	1 Hour Meters	12	11	90%	12	100%
	Reserved (7-11)	9	7	80%	7	80%
Sterling Lot	2 Hour Meters	20	20	100%	20	100%
	Reserved	11	10	90%	7	60%
4400 Blk. Lehigh Road	1 Hour Meters	24	24	100%	24	100%
	Handicapped	2	2	100%	2	100%
Off-Street Total		631	473	75%	476	75%
On-Street Parking						
4500 Blk. College Avenue (2)	90 Minute Meters (North)	19	17	89%	2	11%
	90 Minute Meters (South)	7	6	86%	1	14%
4500 Blk. Lehigh Road	90 Minute Meters (North)	7	7	100%	4	57%
4500 Blk. Knox Road	90 Minute Meters (South)	4	1	25%	4	100%
7400 Blk. Yale Road	90 Minute Meters (East)	14	2	14%	11	79%
4300-4400 Blk. Hartwick Rd. (3)	90 Minute Meters (North)	8	6	75%	7	90%
	90 Minute Meters (South)	41	31	75%	37	90%
Sterling Place	1 Hour Meters	5	5	100%	5	100%
	Reserved	1	1	100%	1	100%
On-Street Total		106	76	72%	72	68%
TOTAL		737	549	74%	548	74%

**Note:**

- (1) Reflects inventory change from 4-20 min., 41-1 hr., and 99-90 min. metered spaces. Reflects peak occupancy change from 31 to 33 spaces to mirror increased utilization of 1 hour spaces.
- (2) Reflects inventory correction from 18 to 19 spaces and corresponding correction from 17 occupied spaces to 18.
- (3) Reflects inventory change from 17 to 41 spaces to account for expanded study area boundary. Utilization change based on pro-rated ratio of the utilization of the 17 surveyed spaces (88% occupied).



System-wide there are currently 737 publicly available parking spaces within the study area. Of that number 549 and 548 (74% of the total) are occupied during a peak weekday and peak weekday evening. However, there are a number of core area lots and on-street parking spaces that are 100% occupied during these peak periods, including the City Hall Lot, Lot 3, and the Special Lot. This is valuable information as these high demand areas are relatively close to the Special Lot site and a new garage on this site may be an attractive option for both short-term and long-term (employee/resident permits holders) parkers.

### Potential Capture of Current Utilization

To determine the number of potential parkers who may choose to relocate from their current parking location to a Special Lot garage potential capture percentages were applied to each of the various lots and on-street parking areas. The capture percentage is based on a combination of factors including current utilization and proximity. For example, it is unlikely that anyone parking in the Bookstore Lot would relocate to a Special Lot garage because spaces are always available (low occupancy) and it is nearly three blocks away. Alternatively, 30% of current transient parking activity is the City Hall Lot could be captured by a Special Lot garage given the proximity of that lot and its intense utilization. Table 3 estimates the total number of current parkers that could be captured by a Special Lot garage during a weekday and weekday evening.

**Table 3**  
**City of College Park Special Lot Financial Feasibility Study**  
**Estimate of Transient Parking Capture**

	Capacity	Restrictions	Occupancy		Capture Potential	Capture	
			Weekday	Weekday Evening		Weekday	Weekday Evening
<b>Off-Street Parking</b>							
Bookstore Lot	93	90 Minute Meters	19	0	0%	0	0
7400 Blk. Route 1	19	90 Minute Meters	17	19	10%	2	2
City Hall Lot	20	2 Hour Meters	20	20	30%	6	6
	15	10 Hour Meters	14	15	0%	0	0
Special Lot	39	3 Hour Meters	39	39	100%	39	39
Lot 2	15	1 Hour Meters	14	15	0%	0	0
	104	3 Hour Meters	62	94	0%	0	0
Lot 1	45	1 Hour Meters	41	45	30%	12	14
	98	90 Minute Meters	88	98	30%	26	29
Lot 3	11	90 Minute Meters	11	10	10%	1	1
4300-4400 Blk. Knox Road	12	1 Hour Meters	11	12	10%	1	1
Sterling Lot	20	2 Hour Meters	20	20	10%	2	2
4400 Blk. Lehigh Road	24	1 Hour Meters	24	24	10%	2	2
<b>Off-Street Total</b>	<b>515</b>		<b>380</b>	<b>411</b>		<b>91</b>	<b>96</b>
<b>On-Street Parking</b>							
4500 Blk. College Avenue	19	90 Minute Meters	17	2	0%	0	0
	7	90 Minute Meters	6	1	0%	0	0
4500 Blk. Lehigh Road	7	90 Minute Meters	7	4	10%	1	0
4500 Blk. Knox Road	4	90 Minute Meters	1	4	10%	0	0
7400 Blk. Yale Road	14	90 Minute Meters	2	11	10%	0	1
4300-4400 Blk. Hartwick Rd	8	90 Minute Meters	6	7	0%	0	0
	41	90 Minute Meters	31	37	0%	0	0
Sterling Place	5	1 Hour Meters	5	5	10%	1	1
<b>On-Street Total</b>	<b>105</b>		<b>75</b>	<b>71</b>		<b>2</b>	<b>2</b>
<b>TOTAL</b>	<b>620</b>		<b>455</b>	<b>482</b>		<b>93</b>	<b>98</b>

Estimated System-wide Capture: 20% 20%

Additionally, and based on discussions with the Parking Supervisor, there is a substantial number of residents and employees who may wish to purchase a parking permit in a Special Lot garage. It is estimated that there are some 170 vehicle owners who currently do not have parking privileges and/or are in search of an available parking space. However, though the business employee requests for permits may be concrete (100% capture); the number of student/residents who would choose to purchase a permit is not (50% to 80% capture estimates). Overall, it is estimated that as many as 125 individuals would purchase a permit in a new Special Lot garage.

*Table 4*

**City of College Park Special Lot Financial Feasibility Study  
Estimate of Unmet Permit Demand/Capture (Employee/Student)**

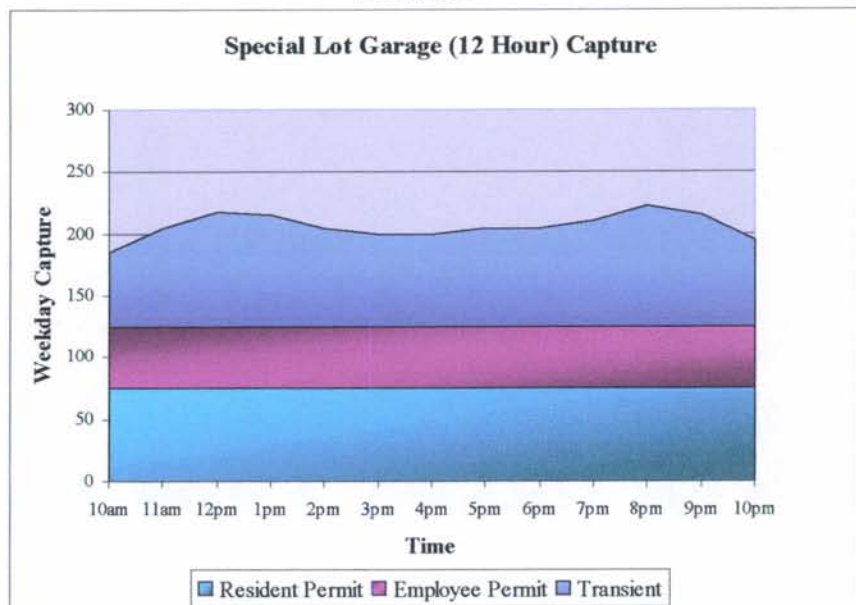
Permit Group	Estimated Unmet Permit Demand (1)	Capture Potential (2)	Estimated Permit Capture
<b>Business Employee Permit Requests</b>	50	100%	50
<b>Student/Resident Permit Requests</b>			
College Park Towers	50	80%	40
Knox Box Residents	40	50%	20
South Campus Commons	30	50%	15
<b>Total</b>	<b>170</b>	<b>---</b>	<b>125</b>

(1) Based on discussion with City of College Park Parking Supervisor and Finance Director

(2) Based on recommended market pricing (\$40 vs. \$50 for employees, \$50 for students), relative proximity of demand to the Special Lot site, and existing alternatives.

Exhibit B illustrates the number of transient and permit parking spaces that could be occupied within the 306 space Special Lot garage. It also suggests the relative consistency of transient parking activity (only a minor “dip” between peak periods).

**Exhibit B**





### Special Lot Garage Revenues and Expenses

It is assumed that a new parking structure on the Special Lot site would be constructed and fully operational by FY2010. Therefore, all revenue and expense figures are expressed in these terms. Table 5 estimates the parking revenue and expenses that could be generated by a Special Lot parking garage. Monthly parking rates for employee permits is set at \$50 per month, resident (student) permits are set at \$60 per month, and transient (hourly) parking rates are set at \$0.75. Given the relative activity of the transient parking spaces (see Exhibit C) it is assumed that the average duration of stay is 2 1/2 hours (\$2.25 average fee) and the number of different parkers that use a single space over the course of an operational day (16 hours) is estimated at 2.5 vehicles per space per day. Based on these figures it is estimated that the garage would generate \$259,500 during its first full year of operation.

Parking operations, management, and maintenance costs are difficult to determine at this time as the mode of operation (meters vs. control gates) has not been determined. For purposes of this analysis, a somewhat conservative figure of \$500 per space per year has been assumed and includes utilities, periodic and long-term maintenance, cleaning, and snow removal. This figure does not include personnel costs.

With operating and maintenance costs estimated at \$150,000 annually and parking revenue estimated at \$259,500 during the first year of operation, an operational profit of \$109,500 would be available to service the debt. Table 6 expands on this analysis through the presentation of a 10-year proforma statement of debt service coverage and includes assumptions regarding periodic rate increases and yearly operating/expense increases.

**Table 5**  
**City of College Park Special Lot Financial Feasibility Study**  
**Parking Revenue and Operating Expense Estimates**

<b>Employee Permits</b> (50 spaces * \$50/mo.)	\$30,000
<b>Residential (Student) Monthly Permits</b> (75 spaces * \$60/mo.)	\$54,000
<b>Weekday Transients (\$0.75/hour)</b> (100 spaces * 2.5 space turnover * \$2.25 avg. rate)	\$146,250
<b>Saturday Transients (free parking on Sunday)</b> (100 spaces * 2.5 spaces turnover * \$2.25 avg. rate * 52 days)	\$29,250
<b>Total Annual Parking Revenue</b>	<u>\$259,500</u>
<b>Annual Operating Expenses</b> (\$500 per space per year)	<u>\$150,000</u>
<b>Resulting Annual Profit or Loss</b> (Before Debt Service Payment)	\$109,500



**Table 6**  
**Proforma Statement excluding Cost of Land Acquisition**

	FY 2010 Year 1	FY 2011 Year 2	FY 2012 Year 3	FY 2013 Year 4	FY 2014 Year 5	FY 2015 Year 6	FY 2016 Year 7	FY 2017 Year 8	FY 2018 Year 9	FY 2019 Year 10
<b>Parking Income (2)</b>	\$259,500	\$259,500	\$285,450	\$285,450	\$314,000	\$314,000	\$345,400	\$345,400	\$379,940	\$379,940
<b>Total Operating and Maintenance Expenses (4)</b>	\$150,000	\$155,250	\$160,680	\$166,300	\$172,120	\$178,140	\$184,370	\$190,820	\$197,500	\$204,410
<b>Net Income (before Debt Service)</b>	\$109,500	\$104,250	\$124,770	\$119,150	\$141,880	\$135,860	\$161,030	\$154,580	\$182,440	\$175,530
<b>Debt Service (3)</b>	\$589,400	\$589,400	\$589,400	\$589,400	\$589,400	\$589,400	\$589,400	\$589,400	\$589,400	\$589,400
<b>Net Income (Loss)</b>	(\$479,900)	(\$485,150)	(\$464,630)	(\$470,250)	(\$447,520)	(\$453,540)	(\$428,370)	(\$434,820)	(\$406,960)	(\$413,870)
<b>Cummulative</b>	(\$479,900)	(\$965,050)	(\$1,429,680)	(\$1,899,930)	(\$2,347,450)	(\$2,800,990)	(\$3,229,360)	(\$3,664,180)	(\$4,071,140)	(\$4,485,010)
<b>Debt Service Coverage</b>	0.19	0.18	0.21	0.20	0.24	0.23	0.27	0.26	0.31	0.30

**Notes:**

- (1) Assumes all previously submitted construction costs, issuance, and revenue estimates are based on Year 2007 figures.
- (2) Assumes permit and hourly rate increases every 2nd year of on average 10%.
- (3) Source: City of College Park Director of Finance
- (4) Operating and maintenance expenses were projected to increase by 3.5% per year inflation factor

As is typical of nearly all structured parking feasibility study this proforma analysis illustrates the fact that the parking structure is not financially self-supporting. Parking rates in College Park would need to be 4 to 5 times what they are today in order to simply “break even”. In many municipalities, the financial expectation is simply to cover operating and maintenance costs, which this facility should. The true value that a parking structure generates is not in the parking revenue it creates but in the increase accessibility that adjacent shops and business will enjoy.

Moreover, a parking structure cannot operate or be financed in a vacuum. Structured parking facilities increase the parking capacity in an area and provide greater flexibility in operations and choice. While the on-street parking meter is designed to encourage turnover, the off-street parking lot and/or garage is designed to provide flexibility, serving a mixture of both long-term and price sensitive short-term parkers. Therefore, the true determination of financial feasibility must examine the current public parking system and the revenues and expenses it generates.

### **System-wide Parking Revenues & Parking Enforcement Expenditures**

To determine the system-wide feasibility of constructing a parking structure on the Special Lot site some appreciation of current parking revenues and expenses is required. Table 7 presents the City of College Park’s parking revenues and parking enforcement expenditures for the Fiscal Years 1999 through 2006. The intent of this study is not to audit current and past revenue and expense trends but to simply understand the fiscal environment that a new parking structure will exist within.

**Table 7**  
**City of College Park Parking Revenues and Parking Enforcement Expenditures**

	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	Average Annual Increase
<b>Parking Revenues</b>									
Parking Meter/Permit Revenues									
Number of Meters	620	620	640	640	640	604	604	613	
Parking Meter Revenue	\$272,739	\$285,404	\$299,296	\$293,622	\$241,810	\$355,419	\$326,163	\$445,610	9%
(Revenue per Meter)	\$440	\$460	\$468	\$459	\$378	\$588	\$540	\$727	9%
Parking Permit Revenue	\$21,547	\$25,326	\$22,421	\$27,391	\$24,946	\$32,597	\$36,640	\$52,391	20%
<b>Total Meter/Permit Revenue</b>	<b>\$294,286</b>	<b>\$310,730</b>	<b>\$321,717</b>	<b>\$321,013</b>	<b>\$266,756</b>	<b>\$388,016</b>	<b>\$362,803</b>	<b>\$498,001</b>	<b>10%</b>
Parking Fines/Violations Revenue									
Vehicle Booting Fees	\$192	\$385	\$2,835	\$6,521	\$4,585	\$2,071	\$1,190	\$1,120	69%
Parking Fine Revenue (75% Paid)	\$1,103,172	\$919,270	\$1,129,816	\$940,135	\$1,318,585	\$1,272,828	\$1,163,534	\$1,086,490	0%
Total Parking Fines/Violation Revenue	\$1,103,364	\$919,655	\$1,132,651	\$946,656	\$1,323,170	\$1,274,899	\$1,164,724	\$1,087,610	0%
<b>Total Parking Revenues</b>	<b>\$1,397,650</b>	<b>\$1,230,385</b>	<b>\$1,454,368</b>	<b>\$1,267,669</b>	<b>\$1,589,926</b>	<b>\$1,662,915</b>	<b>\$1,527,527</b>	<b>\$1,585,611</b>	<b>2%</b>
<b>Total Repair/Maintenance Costs</b>	<b>\$10,579</b>	<b>\$5,796</b>	<b>\$8,136</b>	<b>\$6,892</b>	<b>\$4,541</b>	<b>\$4,659</b>	<b>\$9,010</b>	<b>\$16,124</b>	<b>7%</b>
<b>Parking Enforcement Expenditures</b>									
Personnel (Payroll/Benefits/Training)	\$390,491	\$377,460	\$365,556	\$420,247	\$469,595	\$499,819	\$543,415	\$535,908	5%
Overhead (Insurance, Utilities, etc.)	\$57,430	\$76,760	\$66,313	\$93,926	\$125,756	\$118,737	\$127,302	\$139,192	20%
Professional/Special Services	\$17,201	\$16,995	\$18,735	\$18,931	\$20,109	\$21,401	\$20,298	\$21,991	4%
Supplies/Uniforms	\$7,476	\$10,747	\$13,853	\$14,532	\$12,250	\$13,004	\$15,312	\$13,238	11%
Fixed Assets	\$36,250	\$4,908	\$6,935	\$0	\$3,379	\$2,017	\$39,480	\$0	-14%
<b>Total Parking Enforcement Expenditures</b>	<b>\$508,848</b>	<b>\$486,870</b>	<b>\$471,392</b>	<b>\$547,636</b>	<b>\$631,089</b>	<b>\$654,978</b>	<b>\$745,807</b>	<b>\$710,329</b>	<b>6%</b>
<b>Contribution to the General Fund</b>	<b>\$878,223</b>	<b>\$737,719</b>	<b>\$974,840</b>	<b>\$713,141</b>	<b>\$954,296</b>	<b>\$1,003,278</b>	<b>\$772,710</b>	<b>\$859,158</b>	<b>-0.3%</b>



Clearly, the public parking system is a significant revenue source for the City. In FY2006 parking meter and permit revenue equaled \$498,001 and parking fines revenue equaled \$1,086,490. Less parking enforcement expenditures, the parking system generated a net operating profit of \$859,158. However, it is understood that parking revenue contributes to the City's General Fund and should not be dedicated to pay the debt service on a parking structure. This is a key element in the financial feasibility study as regardless of an increase in parking rates, changes to parking utilization, or changes to management and enforcement strategies, a significant amount of money generated by the parking system must be dedicated to the General Fund. For purpose of this analysis and based on direction provided by the City a fund of \$780,000 per year will be used to determine the appropriate and permanent level of contribution that the parking program makes to the General Fund

### Recommended Rate Changes

This analysis presumes that hourly parking rates will increase in FY2008 from \$0.50/\$0.55 per hour to \$0.75. It also presumes that the rates will increase again to \$1.00 per hour in FY2010 when a Special Lot garage comes online. Hourly rates in the Special Lot garage would remain at \$0.75 per hour. Beyond those years the analysis assumes that rates would increase 10% every third year. Immediate and periodic rate increases are recommended for the following reasons:

1. Current rates are lower than nearby/similar municipalities and lower than charged at the University of Maryland (see Table 8)
2. On-street spaces and most of the spaces in surface lots are more conveniently located and are therefore a more valuable commodity.
3. Tiered pricing should be instituted to encourage parkers to utilize less convenient spaces
4. Tiered pricing (lower rates in garage) would provide parking options for the more price sensitive parkers.

**Table 8**  
Comparative Hourly and Monthly Permit Rates

Location	Hourly	Monthly Permit	Commuting Student	Resident Student
Silver Spring, MD	\$0.60	\$80	---	---
Wheaton, MD	\$0.35	\$65	---	---
Bethesda, MD	\$0.75	\$95	---	---
Rockville, MD (1)	\$0.75	\$100	---	---
Towson, MD	\$1.00	\$85	---	---
Frederick, MD	\$0.75	\$65	---	---
Univ. of Maryland (2)	\$2.00	---	\$32	\$62

**Note:**

(1) Rockville rates range between \$75 and \$125 per month with \$100 being the average

(2) Represents monthly average based on semester costs (\$96/sem. for commuters and \$185 per sem. for residents students)



### **System-wide Financial Feasibility, a Parking Fund, and the Required Subsidy**

Tables 9a and 9b present the system-wide financial feasibility of building a parking structure on the Special Lot site under the without loss of fine/violation revenue and with the loss of 20% of fine/violations revenue scenarios. The analysis layers the revenues, expenses, and debt service payment associated with the garage onto the existing system-wide revenues and expenditures including presumed meter rate increases in FY2008 and FY2010. The critical difference between the two scenarios is the potential loss of some \$220,000 in annual fine/violations revenue once the Special Lot garage is open and operational.

Under Scenario 1 (no loss in fine/violation revenue), the parking system operating income will increase from \$889,100 in FY2007 to \$1,091,590 in FY2009 in association with the recommended rate increases. Operating income would drop to \$627,600 with development and subsequent debt service for the new garage in FY2010. That operating income would then gradually grow to \$751,330 in FY2015 with modest increases in parking demand and parking permit rates. Under Scenario 2 (20% fine/violations revenue loss), the parking system operating income would be similar to Scenario 1 until FY2010 where it would drop to \$399,300 and increase gradually to \$522,930 by FY2015.

Prior to the determination of subsidy required to maintain the contribution to the General Fund a new element needs to be presented. With an increase in parking rates in FY2008 the parking system will be generating additional revenue. That revenue could be reserved in a parking fund to be "drawn against" in future years in an effort to eliminate or reduce any required subsidy. Using \$780,000 as the annual and permanent contribution to the general fund, a parking fund in the amount of \$632,980 could be generated by FY2010. Under Scenario 1 (illustrated on Table 10a), a drawdown from the parking fund would cover the anticipated operational shortfall during the first five years that the garage is operational (FY2010 through FY2014). By FY2015 the parking fund will be drained and a subsidy of \$18,640 would be required. With anticipated increases in parking utilization over time (5% per year), the parking system revenue would exceed the \$780,000 contribution to the general fund by FY2018. At this time, contributions to the parking fund can once again begin and support future parking improvements.

Under Scenario 2 (illustrated on Table 10b), the operating income to General Fund contribution shortfall would be so significant (\$380,700 in FY2010) that the parking fund would be drained within the first two years of operation. As such, and in an effort to extend the effectiveness of a parking fund drawdown, the annual drawdown amount was limited to \$100,000. What would have been a \$380,700 subsidy in FY2010 is reduced to \$280,700. By FY2017 the parking fund would be completely drained. With periodic increases in parking permit rates and a presumed 5% annual increase in system-wide parking utilization the required subsidy would only be \$192,660. Some annual subsidy would be required throughout the length of the debt service payment on the Special Lot garage but that subsidy would decline approximately 6% per year.



Table 9a

Scenario 1: Projection of System-wide Parking Financial Feasibility with No Drop in Fines/Violations Revenue

	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
<b>Parking Revenues</b>														
Parking Meter/Permit Revenues														
Number of Meters	613	613	613	613	613	613	613	613	613	613	613	613	613	613
Parking Meter Revenue (1) (2) (3)	\$445,610	\$668,400	\$701,800	\$740,900	\$777,900	\$816,800	\$857,600	\$900,500	\$945,500	\$992,800	\$1,042,400	\$1,094,500	\$1,149,200	\$1,206,700
(Revenue per Meter)	\$727	\$1,090	\$1,145	\$1,209	\$1,269	\$1,332	\$1,399	\$1,469	\$1,542	\$1,620	\$1,700	\$1,785	\$1,875	\$1,969
Parking Permit Revenue (4)	\$52,390	\$52,390	\$52,390	\$57,600	\$57,600	\$57,600	\$63,400	\$63,400	\$63,400	\$69,700	\$76,700	\$84,400	\$92,800	\$102,100
<b>Total Meter/Permit Revenue</b>	<b>\$498,000</b>	<b>\$720,790</b>	<b>\$754,190</b>	<b>\$798,500</b>	<b>\$835,500</b>	<b>\$874,400</b>	<b>\$921,000</b>	<b>\$963,900</b>	<b>\$1,008,900</b>	<b>\$1,062,500</b>	<b>\$1,119,100</b>	<b>\$1,178,900</b>	<b>\$1,242,000</b>	<b>\$1,308,800</b>
Parking Fines/Violations Revenue (5)														
Vehicle Booting Fees	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
Parking Fine Revenue (75% Paid) (6)	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800	\$1,141,800
<b>Total Parking Fines/Violation Revenue</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>	<b>\$1,143,000</b>
<b>Total Parking Revenues</b>	<b>\$1,641,000</b>	<b>\$1,863,790</b>	<b>\$1,897,190</b>	<b>\$1,941,500</b>	<b>\$1,978,500</b>	<b>\$2,017,400</b>	<b>\$2,064,000</b>	<b>\$2,106,900</b>	<b>\$2,151,900</b>	<b>\$2,205,500</b>	<b>\$2,262,100</b>	<b>\$2,321,900</b>	<b>\$2,385,000</b>	<b>\$2,451,800</b>
<b>Total Repair/Maintenance Costs (7)</b>	<b>\$16,700</b>	<b>\$17,400</b>	<b>\$18,100</b>	<b>\$18,800</b>	<b>\$19,600</b>	<b>\$20,400</b>	<b>\$21,200</b>	<b>\$22,000</b>	<b>\$22,900</b>	<b>\$23,800</b>	<b>\$24,800</b>	<b>\$25,800</b>	<b>\$26,800</b>	<b>\$27,900</b>
<b>Parking Enforcement Expenditures (8)</b>														
Personnel (Payroll/Benefits/Training)	\$54,700	\$574,100	\$594,200	\$615,000	\$636,500	\$658,800	\$681,900	\$705,800	\$730,500	\$756,100	\$782,600	\$810,000	\$838,400	\$867,700
Other (Insurance, Utilities, Supplies, Services)	\$180,500	\$186,800	\$193,300	\$200,100	\$207,100	\$214,300	\$221,800	\$229,600	\$237,600	\$245,900	\$254,500	\$263,400	\$272,600	\$282,100
<b>Total Parking Enforcement Expenditures</b>	<b>\$735,200</b>	<b>\$760,900</b>	<b>\$787,500</b>	<b>\$815,100</b>	<b>\$843,600</b>	<b>\$873,100</b>	<b>\$903,700</b>	<b>\$935,400</b>	<b>\$968,100</b>	<b>\$1,002,000</b>	<b>\$1,037,100</b>	<b>\$1,073,400</b>	<b>\$1,111,000</b>	<b>\$1,149,800</b>
<b>Revenue to Enforcement/Maintenance Coverage</b>	<b>\$889,100</b>	<b>\$1,085,490</b>	<b>\$1,091,590</b>	<b>\$1,107,600</b>	<b>\$1,115,300</b>	<b>\$1,123,900</b>	<b>\$1,139,100</b>	<b>\$1,149,500</b>	<b>\$1,160,900</b>	<b>\$1,179,700</b>	<b>\$1,200,200</b>	<b>\$1,222,700</b>	<b>\$1,247,200</b>	<b>\$1,274,100</b>
<b>Special Lot Garage (9)</b>														
Net Income (Loss)	\$0	\$0	\$0	-\$479,900	-\$485,150	-\$464,630	-\$470,250	-\$447,520	-\$453,540	-\$428,370	-\$434,820	-\$406,960	-\$413,870	-\$383,030
<b>Parking System Operating Income (Loss)</b>	<b>\$889,100</b>	<b>\$1,085,490</b>	<b>\$1,091,590</b>	<b>\$627,700</b>	<b>\$630,150</b>	<b>\$659,270</b>	<b>\$668,850</b>	<b>\$701,980</b>	<b>\$707,360</b>	<b>\$751,330</b>	<b>\$765,380</b>	<b>\$815,740</b>	<b>\$833,330</b>	<b>\$891,070</b>

**Note:**

- (1) Assumes current meter rates increase from \$0.50 per hour to \$0.75 in FY2008 and from \$0.75 to \$1.00 per hour in FY2010.
- (2) Revenue generated by existing meter system estimated to grow by 5% per year without any rate increases and is based on a projection from historic trends (increased utilization).
- (3) Assumes only 50 of the 100 transient spaces that are vacated by relocated Special Lot garage parkers are reoccupied by new parkers (new demand).
- (4) Assumes 10% permit rate increase every three years.
- (5) No increase in fines for violations is assumed.
- (6) Assumed no change in annual fine revenue.
- (7) Assumes average annual cost increase of 4%. Parking Structure O&M costs included on separate line item.
- (8) Assumes average annual cost of living increase of 3.5%.
- (9) Assumes FY2010 first full year of stabilized operations.

**Table 10a**  
**Determination of Required Subsidy to Maintain General Fund Contribution presuming No Loss of Parking Fine/Violation Revenue**

	Parking Fund Generation			Special Lot Garage in Operation										
	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Parking System Operating Income	\$889,100	\$1,085,490	\$1,091,590	\$627,700	\$630,150	\$659,270	\$668,850	\$701,980	\$707,360	\$751,330	\$765,380	\$815,740	\$833,330	\$891,070
Annual Contribution to the General Fund	n.a.	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000
Drawdown From Parking Fund or Required Subsidy	n.a.	\$0	\$0	\$152,300	\$149,850	\$120,730	\$111,150	\$78,020	\$72,640	\$28,670	\$14,620	(\$35,740)	(\$53,330)	(\$111,070)
"Parking Fund" Accumulation and Drawdown (1)														
"Parking Fund" Annual Contribution	\$0	\$305,490	\$311,590									\$35,740	\$53,330	\$111,070
Interest Income (5% rate of return)	\$0	\$0	\$15,300									\$0	\$1,800	\$2,700
"Parking Fund" Accumulation / Drawdown	\$0	\$305,490	\$632,380	\$511,700	\$387,400	\$286,000	\$189,200	\$120,600	\$54,000	\$0	\$0	\$35,740	\$90,870	\$204,640
Required Subsidy to Maintain General Fund Contributions	n.a.	n.a.	n.a.	\$0	\$0	\$0	\$0	\$0	\$18,640	\$28,670	\$14,620	\$0	\$0	\$0

(1) Parking revenue to be generated before opening of Special Lot garage that exceeds the \$780,000 annual contribution to the General Fund will be dedicated toward a Parking Fund which would be reserved to generate interest income for the parking system.

**Table 10b**  
**Determination of Required Subsidy to Maintain General Fund Contribution presuming 20% Loss of Parking Fine/Violation Revenue**

	Parking Fund Generation			Special Lot Garage in Operation										
	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Parking System Operating Income	\$889,100	\$1,085,490	\$1,091,590	\$399,300	\$401,750	\$430,870	\$440,450	\$473,580	\$478,960	\$522,930	\$536,980	\$587,340	\$604,930	\$662,670
Annual Contribution to the General Fund	n.a.	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000
Drawdown from Parking Fund or Required Subsidy	n.a.	\$0	\$0	\$380,700	\$378,250	\$349,130	\$339,550	\$306,420	\$301,040	\$257,070	\$243,020	\$192,660	\$175,070	\$117,330
"Parking Fund" Accumulation and Drawdown (1)														
"Parking Fund" Annual Contribution	\$0	\$305,490	\$311,590											
Interest Income (5% rate of return)	\$0	\$0	\$15,300											
"Fund" Accumulation / \$100,000 Annual Drawdown (2)	\$0	\$305,490	\$632,380	\$564,000	\$492,200	\$416,800	\$337,600	\$254,500	\$167,200	\$75,600	\$0	\$0	\$0	\$0
Required Subsidy to Maintain General Fund Contributions	n.a.	n.a.	n.a.	\$280,700	\$278,250	\$249,130	\$239,550	\$206,420	\$201,040	\$157,070	\$167,420	\$192,660	\$175,070	\$117,330

(1) Parking revenue to be generated before opening of Special Lot garage that exceeds the \$780,000 annual contribution to the General Fund will be dedicated toward a Parking Fund which would be reserved to generate interest income for the parking system.

(2) A \$100,000 annual drawdown from the "Parking Fund" is assumed so as to extend the life of the drawdown period.



## **Summary of Financial Analysis**

While a \$280,700 subsidy from some source would be required in FY2010 under the 20% loss of fine/violation revenue scenario, no subsidy would be required under the no loss scenario. The \$280,700 range between Scenario 1 and 2 is attributable to the assumptions regarding fine/violations revenue. It could be argued that in the current student dominated culture revenues from parking fines and violations could only increase with an increase in the parking supply. However, to encourage conveniently located spaces to turnover and to meet future increases in shopper/visitor demand, long-term parkers must be relocated to more peripheral locations. The garage would be an ideal location. Furthermore, shoppers and visitors should be provided some flexibility in their duration of stay, thereby alleviating their worries of “do I have time left on the meter”. That would suggest that the garage should use a pay-on-exit/pay-on-foot management approach. Both of these measures would surely mean some reduction in parking fine/violations revenue. But it could also suggest an increase in shopper/visitor volumes, an increase in retail and restaurant sales, and a change in the nature of retail and restaurant activity.

## **Purpose of the Parking Operational Study**

The preliminary financial feasibility study briefly referenced current and potential parking operations and management perspectives. The critical issue in that initial reference was parking management’s impact on the current utilization of parking meters, the utilization of a proposed Special Lot garage, and the resulting impact on the City’s parking fine/violations revenue. With the goal of improving the efficiency and effectiveness of the public parking program, including both on- and off-street parking resources, and presuming that the City does develop a 306-space parking structure on the Special Lot site, some guidance regarding changes and impacts to the management of public spaces is required. With the development of additional parking the City has an opportunity, and possibly an obligation, to change the current operational paradigm from one of enforcement, which is punitive in nature, to control and flexibility, which is oriented towards customer service and choice.

## **Overview of Current Operating Conditions**

Note that the original intent of the study was to determine the financial feasibility of a parking structure. In order to support some of the financial assumptions a certain level of understanding of the City’s current parking operations and management program was required. Therefore, the following overview presents a cursory review of current operations. Note, however, that this review should not be considered an operational audit.

### *Parking Space Inventor, Meters, and Permits*

City’s parking system consists of 613 POM digital parking meters. Metered spaces are located in both public and privately owned surface lots and curbside. Public lot owners (Lot 1 and Lot 3 for example) permit the City to manage their parking assets as a way to encourage turnover and



for efficiency of utilization for its patrons. Metered durations range from 60 minutes to 10 hours. Area employers and individual employees are allowed to purchase parking permits. Each business is limited to 6 permits. A permitted parker is able to park at a parking meter in either the City Hall lot or the Special Lot without fear of getting a ticket. Additionally, 35 permits holders are able to park in the Church Lot.

### *Management and Enforcement*

The Director of Public Services oversees all operations of the Parking Enforcement division. The City employs a Parking Enforcement Manager and six full-time parking enforcement officers who utilize AutoCite handheld electronic ticket writers. Meters are enforced Monday through Saturday from 8:00 AM to 10:00 PM. An 18-hour limit is enforced in metered lots and a 48-hour limit is enforced on street. Under this program an individual could choose to remain at a 90 minute metered space for as long as 18 hours given they feed the meter.

The parking fine for an “expired meter” ticket is \$17.50 if paid within the first 14 days from ticket issuance. After 14 days the fine is \$35.00. After 30 days the fine is \$45.00. Most other parking citations issued by the City are \$35.00. Overall, the City issues between 36,000 and 38,000 tickets annually, of which approximately 74% fall under the expired meter category.

### **Perspective on Current Operations**

From a user’s standpoint, there are two different parking perspectives and expectations that need to be considered when developing a public parking program; the shopper or visitor’s expectation and the employee or permit holder’s expectation. Shoppers and visitors are typically parked for a shorter duration of time in accordance with their trip purpose; shopping, lunch, business meeting, etc. Additionally, shoppers and visitors can be less familiar with an area as compared to employees. As a result, these users require more conveniently located and identifiable parking spaces. In addition, given their shorter duration of stay and need for convenient and easily identifiable parking, they generally appreciate the value of that more convenient space. Paying a small fee for the convenience is not unreasonable. Therefore, it is generally understood that the cost of a convenient spaces can be greater than the cost of a less convenient space. This price differential also encourages those who park for longer durations and those who are more price sensitive to find lower priced less convenient spaces. Permit holders, specifically employee permit holders, are naturally long-term parkers. They are intimately familiar with the parking system and are much more price sensitive. Therefore, it is not unreasonable to encourage these individuals to park in the least convenient spaces presuming that the pricing structure is fair and effective.

### **Operational Recommendations**

Presently, the City does not enforce metered time durations. This is somewhat unusual as the intent of a parking meter is to encourage turnover. The City only tickets for an expired meter.



Furthermore, with the exception \$0.05 (\$0.50 meter vs. \$0.55 meter) there is no price differential between meters. The cost of one hour of parking at the Bookstore lot is the same that that is Lot 1 or at City Hall.

It is recommended that the City rigorously enforce metered time limits. This action will encourage long-term parkers to make use of the underutilized Bookstore Lot and a new parking structure on the Special Lot site. The Parking Enforcement Division has the handheld devices and management software already in place to record and enforce time limits. The handheld technology is flexible enough to include a warning as opposed to a violation for first time offenders.

It is also recommended that the City adjust its meter time limits to better serve the public and further encourage turnover. As opposed to 1-hour, 90-minute, 3-hours, and 10-hours metered spaces; a system-wide duration of 2-hours should be programmed into the existing digital meters. Two hours is generally sufficient to meet most shopper and visitors needs and to discourage attempts at long-term parking and meter feeding.

The financial feasibility analysis assumed that hourly parking in a Special Lot garage would be \$0.25 less per hour than surface and on-street metered parking. If current metered rates are set at \$1.00 per hour then the garage hourly rate should be \$0.75 per hour.

With regards to parking violations and fines, it appears that the current fine structure for an expired meter is considerably lower than the fine in Montgomery County but higher than the fine in Prince Georges County (see Table 12). The delinquency structure for overdue violations does appear appropriate in comparison with these other municipalities. However, the City's violations and fines do not penalize repeat offenders and should introduce a graduated fine structure. For example, if a parking enforcement officer identifies a vehicle that has not previously received a parking citation, that individual would receive a warning. No fine would be levied. If that vehicle is identified a second time within a predetermined period that vehicle would receive a parking citation at the base rate. A third violation would receive an increased fine. A fourth violation would require an even higher fine. A fifth violation would require the booting of the vehicle. Such a tiered system is only possible through the use of handheld ticket issuance technology.

**Table 12**  
**Fines for Sample Violations at Nearby Jurisdictions**

Violation	Jurisdiction		
	City of College Park	Montgomery County	Prince Georges County
Expired Meter	\$17.50	\$35.00	\$15.00
Parking In Handicapped Space	\$255.00	\$250.00	\$200.00
Parking in Loading Zone	\$55.00	\$50.00	\$50.00



It is critical to the effectiveness of the entire public parking system for a Special Lot garage to be flexible to serve both short-term and long-term parkers. If the City were to utilize single or multi-space meter devices to control the utilization of parking in the new garage then shoppers and visitors with undefined durations of stay would risk receiving a violation for an expired metered and/or constantly worry about how much time they have to shop and/or dine. Therefore, it is recommended that the garage utilize an automated, gated pay-on-foot/pay-on-exit access and revenue control system. Under this system a parker would pull a ticket to open the gate and enter the garage. This ticket would be time stamped. Prior to exiting the garage the parking patron could either walk up to a central pay station to pay the appropriate fee (per their parked duration) or pay on exit. This type of access and revenue control program could also accommodate a potential merchant validation program where the cost to the parking patron is reduced.

## **Conclusion**

In a well-designed parking program the turnover of spaces occurs naturally through properly planned rate structures, time limits and parking enforcement efforts.

The basic foundation of a parking program is the parking enforcement program. Without the effective enforcement of both time limits and general parking policies, the best laid plans will ultimately fail. The enforcement of time limits, in a municipal parking program, is required so that spaces turnover as designed. Without enforcement of time limits, there is no incentive for the user to use the spaces intended for their specific use. Without the turnover of spaces the public perception of parking being difficult to find is substantiated.

When developing fees for parking the laws of supply and demand prevail much like the pricing of other commodities. The less parking is available the higher the fees for parking. In addition, price and convenience are also important to consider when setting rates. As sports fans are willing to pay more to sit in the premium seats so will parkers pay more to walk less. Parking rates should be designed so that premium short-term parking is relatively more expensive than less convenient long-term parking, which is most always found on the periphery of a business district.

Parking fine fees are designed to be a financial disincentive for individuals who try to circumvent parking policies. These fees should be designed so that most users will think twice before parking in an inappropriate area but should not be so substantial that it discourages future visits from shoppers and other non employee users if they should receive a ticket. For this reason, the use of a tiered parking fine program often works best. This type of program often allows the user to receive a warning before being issued an actual citation.

With the development of a new parking garage, it is essential that a serious look be given to the way the City manages its parking resources. Reliance on parking fine revenue should be reduced



and reliance on fees from properly designed parking programs should be encouraged. Parking plays an important role in redevelopment and the issuance of parking tickets can sometimes be viewed as having a negative influence on this process. As long as parking rates remain within ranges set by the local market and parking programs are designed to provide convenient parking for the sort-term user then parking revenues should ultimately increase as redevelopment occurs and spaces turnover as designed.

Finally, with the development of a parking garage, the City can provide a location where users can park for any length of stay without fear of receiving a parking ticket. The use of parking access and revenue control systems in this facility will allow the City to provide this option as well as provide detailed usage and revenue data. Fees for this facility can be designed to promote both short-term parking and long-term parking based on the specific needs of the area.